

Skywarn Weather Spotter Training

Spring 2021 Sessions



When Thunder Roars - Head Indoors See a Flash - Dash Inside

#SpringSafety #SummerSafety Turn Around Don't Drown

www.weather.gov/wrn/spring-safety











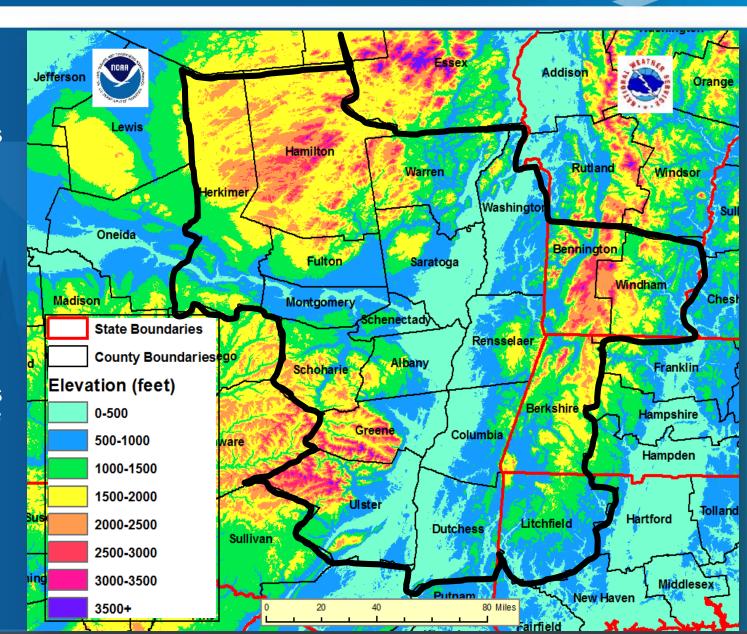
- I. Area of Responsibility
- II. Spotter Safety
- III. Severe Weather Information
- IV. Thunderstorm Development
- V. Lightning
- VI. Hail
- VII. Damaging Winds
- VIII.Cloud formations
- IX. Tornadoes
- X. Timeliness of Reports
- XI. Excessive Rainfall and Flooding
- XII. New York Mesonet
- XIII.CoCoRaHS
- XIV.QUIZ
- XV.Certificate





Local Topography – Albany Forecast Area

- 15 NY Counties
- 2 VT Counties
- 1 MA County
- 1 CT County
- 1/3 of our forecast area is at elevations of 1500 feet and above!





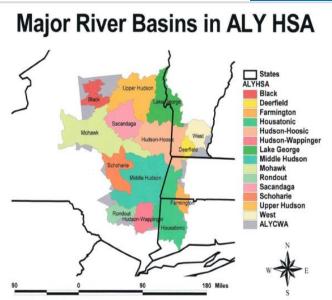
Hydrologic Area of Responsibility



NWS River Forecast Centers

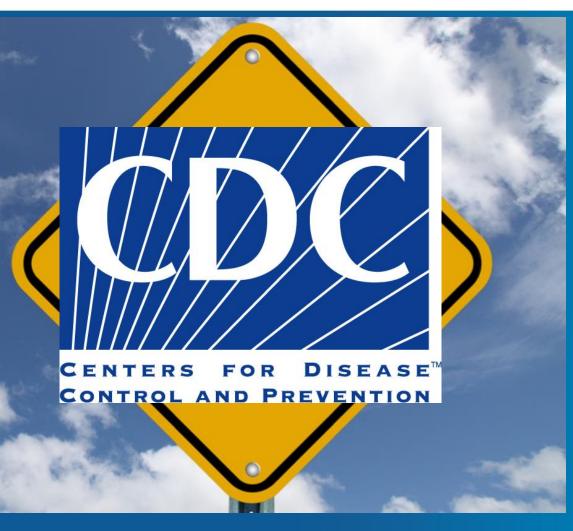








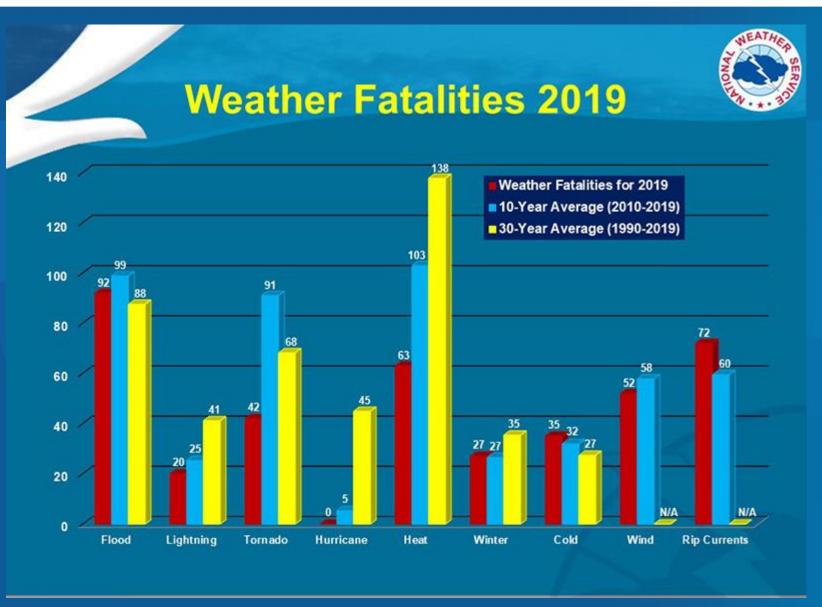
Awareness
Communication
Escape routes
Safety zones



Your Safety is ALWAYS #1



Skywarn Safety





Severe Weather Safety Overview

SEVERE WEATHER

HAZARDS



Over 280 fatalities occur each year in the U.S. from thunderstorm related hazards.

weather.gov/safety

TORNADO Take shelter immediately in a sturdy structure



SEVERE WIND Move indoors away from windows

FLOODING Avoid rising creeks and water covered roads

LIGHTNING Move indoors if you hear thunder













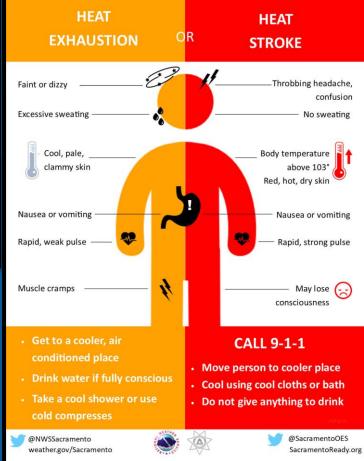
Heat Index = Temperature + Humidity

Heat Advisory

Narning

Excessive Heat







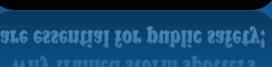
What is a Skywarn Spotter?

Observe

Report

Warning



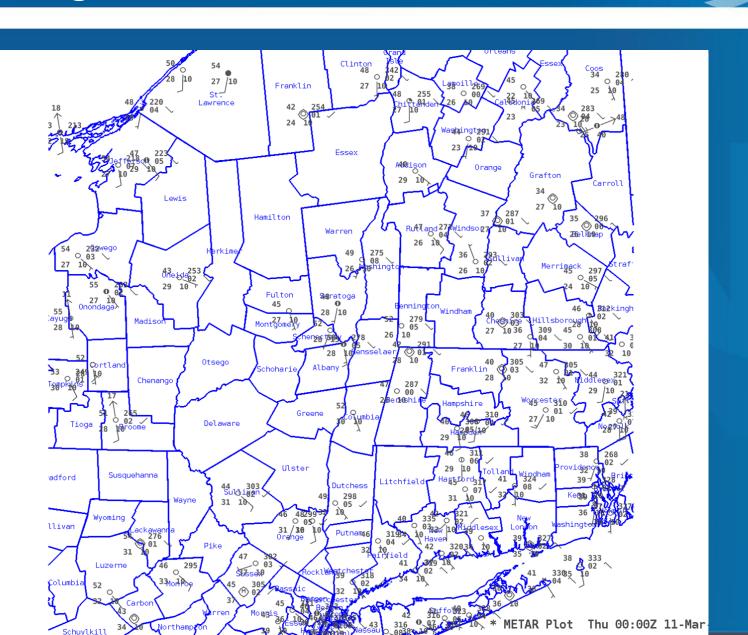








Regional & Mesonet Observations





Skywarn Spotter Information Sheet



NATIONAL WEATHER SERVICE, NOAA ALBANY, NY SKYWARN INFORMATION SHEET



Report Severe Weather (Backup)	
Weather Spotter Field Guide	www.weather.gov/media/owlie/SGJune6-11(1).pdf
Email	alb.stormreport@noaa.gov
NWS Albany	www.weather.gov/Albany
Twitter	@NWSAlbany
Facebook Page	https://www.facebook.com/NWSAlbany
NOAA Weather Radio	https://www.weather.gov/nwr/
Storm Prediction Center	www.spc.noaa.gov
NWS Online Weather School	www.weather.gov/jetstream
Weather Prediction Center	www.wpc.ncep.noaa.gov
River Flood Monitoring	water.weather.gov/ahps
CoCoRaHs	www.cocorahs.org
NWS Amateur Radio Frequency	Primary 146.64 MHz - Secondary 145.19 MHz

IMPORTANT WEATHER TO REPORT

When you report, please give your location (including your county) and the time of the observation. Try to report as soon as possible after observing the event and, remember your safety comes first! Please concentrate on the following phenomena:

SNOWFALL After 1 inch of new snow, and then at 2 inches, 4 inches, and every 2 inches thereafter (e.g.,

2, 4, 6, 9, 12, etc.). Then final storm total at the conclusion of the event.

FREEZING RAIN As soon as you observe the occurrence of freezing rain or freezing drizzle, especially if it starts

to collect on objects. Call again if the ice accumulation exceeds 1/4 inch. (measure on flat

THUNDER SNOW Location and time of occurrence

WIND SPEEDS Report wind speeds greater than 40 mph

Report when you receive one inch (and then at least every inch thereafter) RAINFALL

FUNNEL CLOUD A "rotating" appendage descending from the base of a cumulonimbus cloud, but not touching

the ground. If possible, always look at the area beneath the funnel cloud for flying debris. If

flying debris is observed, it is a tornado.

TORNADO Violently rotating column of air descending from a cumulonimbus cloud and touching the

ground. Look for flying debris. If possible, report any injuries or fatalities

Report hail 0.75 or larger. Specify the diameter based on the hail scale (see other side)

HAIL FLOODING Report any flooding you observe, including basement, road, stream, creek, and ice iam

flooding. Report the name of the stream/creek, road number/name (if applicable) and depth DAMAGE

Report all storm-related damage (large branches, fallen trees, structural damage, flood damage,

etc.) Even if it is several days after the event.

DEWPOINT SCALE					
Degrees "F"	50-55	55-60	60-65	65-70	>70
Comfort Scale					

HAIL	Pea	Plain M&M	Penny	Nickel	Quarter	Half Dollar
Scale	0.25 in	0.50 in	0.75 in	0.88 in	1.00 in	1.25 in
HAIL	Golf Ball	Baseball	Softball			
Scale	1.75 in	2.75 in	4.00 in			

ENHANCED FUJITA SCALE	
EF0	65-85 mph
EF1	86-110 mph
EF2	111-135 mph
EF3	136-165 mph
EF4	166-200 mph

ESTIMATED V	VIND SCALE
25-31 MPH	Large branches in motion; whistling in telephone wires
32-38 MPH	Entire trees in motion; slight difficulty walking against wind
39-54 MPH	Twigs break off trees; wind generally impedes progress
55-72 MPH	Damage to chimneys and TV antenna: large limbs/branches down

>200 mph

73-112 MPH......Roof surfaces damaged; windows broken; light mobile homes moved or overturned;

moving vehicles pushed off road

113-157 MPH......Roofs torn off; weak buildings and mobile homes destroyed

>158 MPH.....Severe damage; cars lifted completely off ground

DEFINITIONS

EF5

Severe Thunderstorm A thunderstorm which produces hail to 1 inch in diameter or larger and/or wind gusts to

58 mph (50 kts) or greater

Watch Conditions are favorable for the weather event in or near the watch area

Warning The weather event is imminent or occurring in the warned area

Advisory The weather event will be an inconvenience. However, if caution is not exercised, it

could become life-threatening (mostly during the winter months)

Flash Flood A flood caused by heavy rainfall in a short period of time, generally less than 6 hrs

Inundation caused by heavy rain which generally takes greater than 6 hrs to occur Flood

Tornado A violently rotating column of air which extends from a thunderstorm and it is in

contact with the ground

Funnel Cloud A rotating, funnel-shaped cloud extending from the base of a thunderstorm and is not in

contact with the ground

Downburst A strong downdraft with an outrush of damaging wind on or near the ground

> Macroburst - swath of damaging wind more than 2.5 miles wide Microburst - swath of damaging wind 2.5 miles wide or less

SKYWARN FAOs

-SKYWARN Spotter recertification - every 2 years

-SKYWARN Spotter webpage - https://www.weather.gov/aly/skywarn



Follow us on Facebook & Twitter

www.facebook.com/NWSAlbany

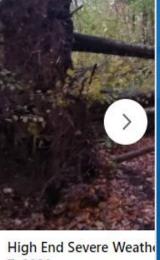


For a detailed review of the high end severe weather event from Wednesday October 7, 2020, visit our weather event summary page here https://www.weather.gov/.../High-End_Severe_Weather_Event...



High End Severe Weather Event October 7, 2020

A high-end severe weather event unfolded acr...



7, 2020

A high-end severe weather e

1 Comment 24 Shares

Share

Like

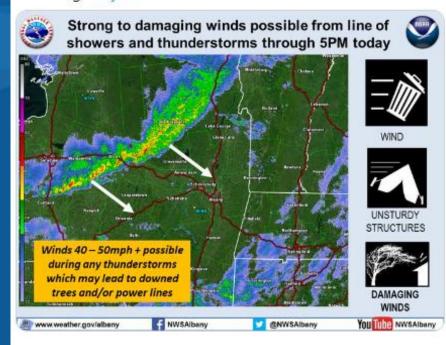


Comment

Twitter - @NWSAlbany

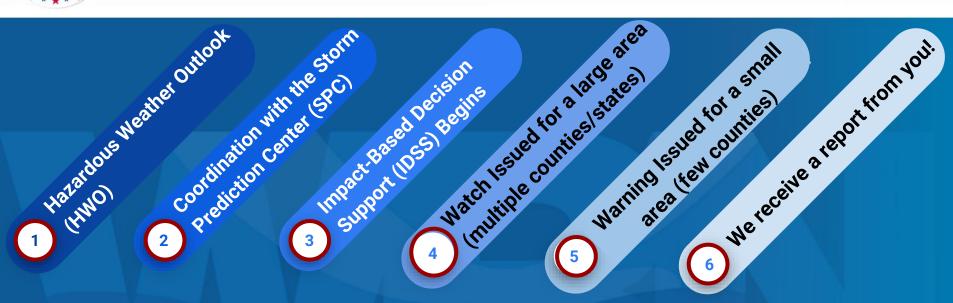


Heads-up afternoon commuters! Line of showers and some thunderstorms heading into the Mohawk Valley and Greater Capital District has produced winds gusts up to 50-55mph. This may lead to downed trees and power lines through 5PM. Stay safe if you are you traveling. #nywx





Timeline of Severe Weather Products





Storm Prediction Center Outlooks

Understanding Severe Thunderstorm Risk Categories

THUNDERSTORMS (no label)

No severe* thunderstorms expected

Lightning/flooding threats exist with all thunderstorms

1 - MARGINAL (MRGL)

Isolated severe thunderstorms possible

Limited in duration and/or coverage and/or intensity 2 - SLIGHT (SLGT)

Scattered severe storms possible

Short-lived and/or not widespread, isolated intense storms possible

3 - ENHANCED (ENH)

Numerous severe storms possible

More persistent and/or widespread, a few intense

4 - MODERATE (MDT)

Widespread severe storms likely

Long-lived, widespread and intense 5 - HIGH (HIGH)

Widespread severe storms expected

Long-lived, very widespread and particularly intense













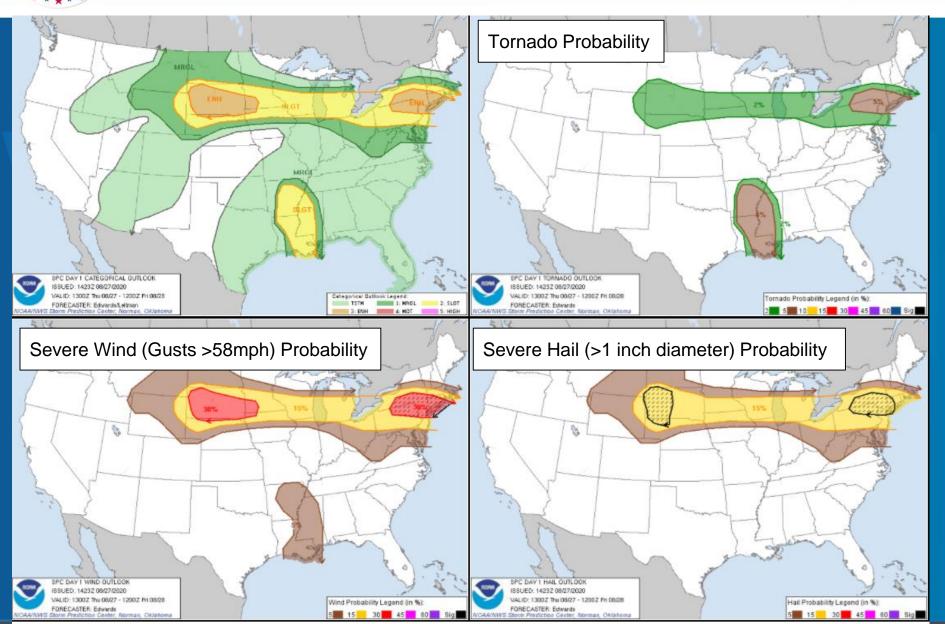
* NWS defines a severe thunderstorm as measured wind gusts to at least 58 mph, and/or hail to at least one inch in diameter, and/or a tornado. All thunderstorm categories imply lightning and the potential for flooding. Categories are also tied to the probability of a severe weather event within 25 miles of your location.





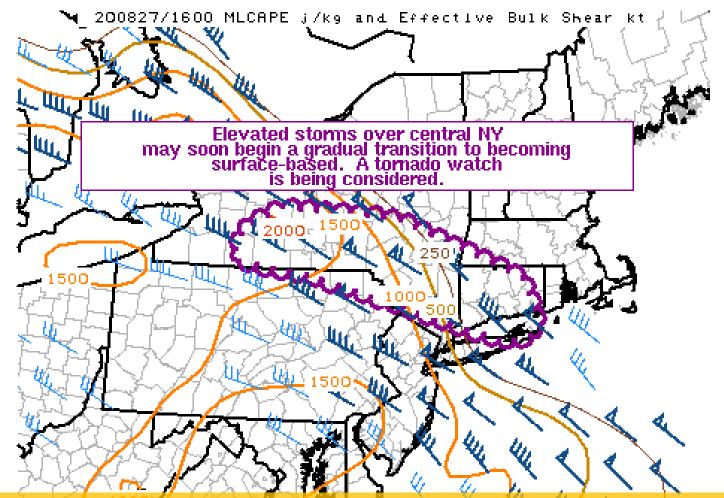


Probabilistic SPC Outlooks & MCD





Mesoscale Convective Discussion



Elevated storms over central NY may soon begin a gradual transition to becoming surface-based. One or two watches is likely across the general region from western NY eastward to CT and Long Island.

know the difference between a severe thunderstorm

Watch and Warning

Be Prepared... severe weather possible

- Monitor sky conditions
- M Know where to take shelter

Take Action! severe weather imminent

Take shelter immediately

✓

Seek further information

Check for forecast updates

Be Weather-Ready



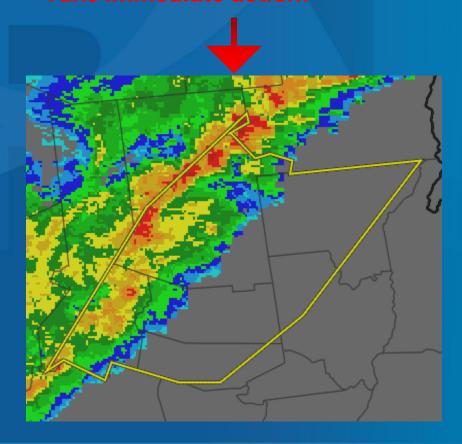
Watch vs Warning

Watch

- -Conditions are favorable for severe weather development over the coming hours.
- -Remain Alert!

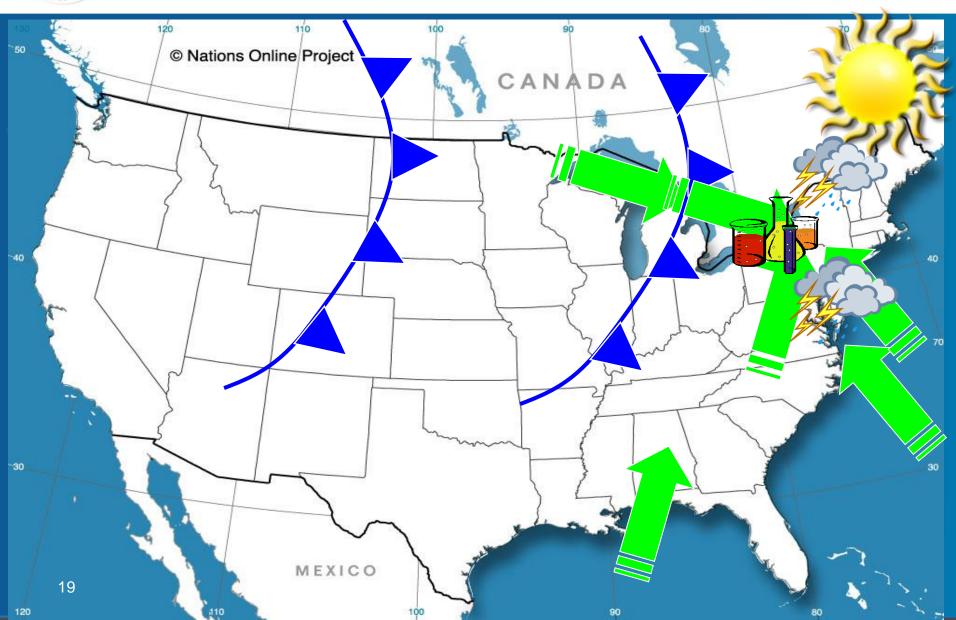
Warning

- -Severe weather is **imminent or ongoing**
- -Take immediate action!





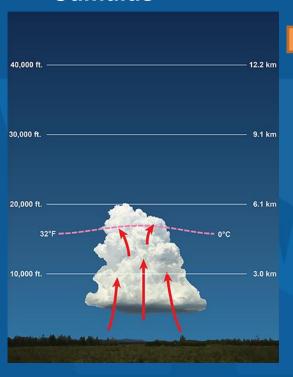
Thunderstorm Development 101



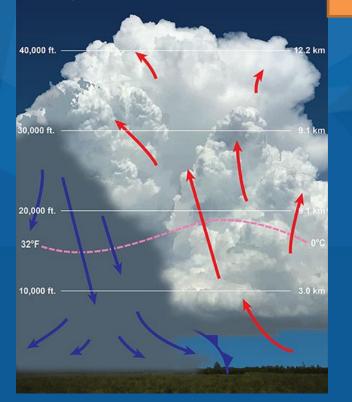


Overview of Thunderstorm Development

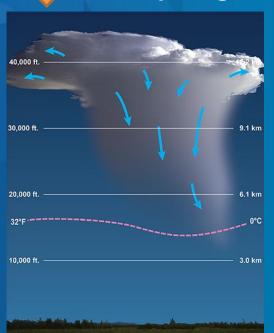
Cumulus



Mature Cumulonimbus



Dissipating



https://www.weather.gov/jetstream/cloudchart



Lightning

Do's and Don'ts

Do

Go Inside When You Hear Thunder!

Find a Sturdy House, Building, Car With A Roof

Stay Indoors For at Least 30 Minutes After You Last Hear Thunder



weather.gov/lightning

Don't

Retreat to Dugouts, Sheds, Pavilions, Picnic Shelters or Other Small Structures

Use or Touch Electronics, Outlets, Corded Phones or Windows

Go Under or Near Tall Trees, Swim or Be Near Water, Stand Near Metal Objects



From Flash to Thunder:

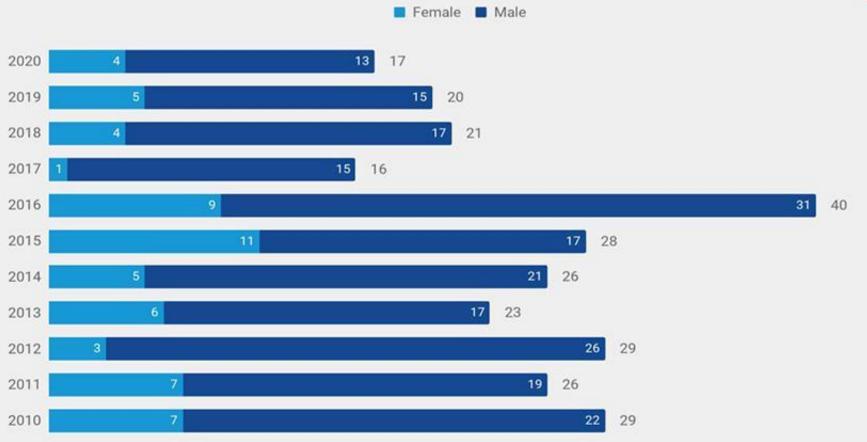
Count 5 seconds = 1 mile away!

Lightning Safety 30/30 rule



U.S. Lightning Fatalities, 2010-2020





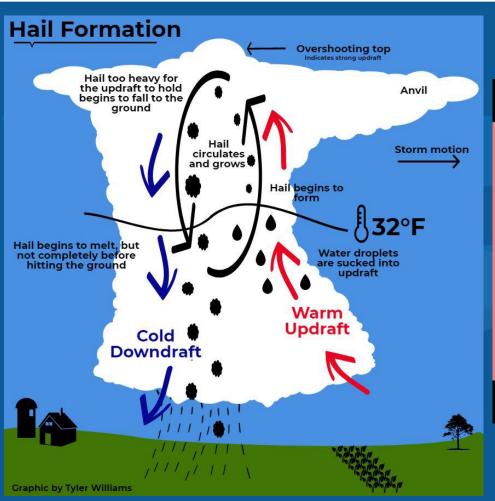


See a Flash...





Hail - Development & Formation







Hail - Description Table



<u>Hail Sizes</u>

< 1/4" = BB 1/4" = Pea 7/10" = Dime 3/4" = Penny 7/8" = Nickel

1" = Quarter
1 1/4" = 1/2 Dollar
1 1/2" = Ping Pong Ball
1 3/4" = Golf Ball
2" = Hen Egg
2 1/2" = Tennis Ball
2 3/4" = Baseball
3" = Tea Cup

4" = Softball

 $4 \frac{1}{2}$ " = Grapefruit

Measure along long axis!



Hail: May 15, 2018 Saugerties Supercell





What the Hail?!? - Vehicle Safety







Stop driving. Stay out of culverts and lowland areas.

If you can see a safe place closeby to drive to (i.e. inside a garage, or under a service station awning), then get there quickly Make sure you pull <u>completely</u> off the highway.



Stephanie Vandewalker Golden, Colorado May 2017

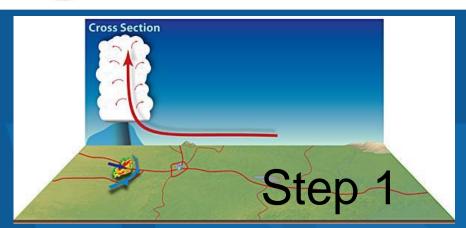
Do NOT leave the vehicle until it stops hailing. Your car will provide reasonable protection.

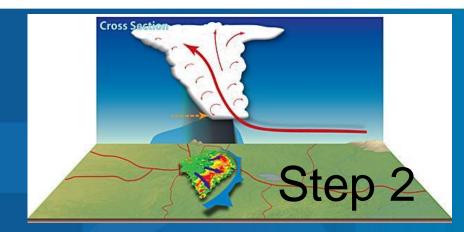
Cover your face and eyes.

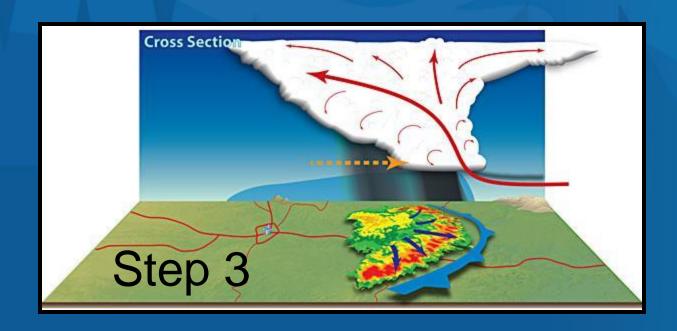
If possible, get onto the floor face down, or lay down on the seat with your back to the windows in a car.



Damaging Wind – How?









Damaging Winds – Radar







Damaging Winds – May 2018





Microburst - June 5, 2020







What is a Derecho?

Widespread, long-lived wind storm made up of rapidly moving thunderstorms.

Often can cover hundreds of miles & last multiple



October 7, 2020 Derecho Event

"Typical"

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

8,8,

Please report hail size...damaging winds and reports of trees down to

the National Weather Service by email at Alb.Stormreport@noaagov...

On Facebook at www.facebook.com/nwsalbanv or twitter @nwsalbanv

LAT...LON 4322 7507 4324 7507 4323 7510 4326 7516 4330 7515 4330 7512 4333 7508 4346 7465 4333 7367 4309 7380 4274 7435 4277 7467

4283 7465 4290 7488 4284 7489 4282 7491 4291 7510 4286 7514 4286 7521 4305 7522

TIME...MOT...LOC 1845Z 279DEG 58KT 4333 7461 4318 7479 4301 7529

HAIL..<.75IN

WIND...60MPH

\$\$

Enhanced Severe Thunderstorm Warning Severe Thunderstorm Warning

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

This is a DANGEROUS SITUATION. These storms are currently producing

widespread wind damage across the Mohawk Valley. SEEK SHELTER NOW

inside a sturdy structure and stay away from windows! 8,8,

Please report hail size...damaging winds and reports of trees down to

the National Weather Service by email at

Alb.Stormreport@noaagov...

On Facebook at www.facebook.com/nwsalbany or twitter @nwsalbanv

LAT...LON 4308 7244 4283 7282 4239 7378 4259 7465 4283 7465 4285 7473 4308 7422 4345 7367

4339 7325 4331 7324 4330 7282 4325 7282

4322 7269 4323 7243

TIME...MOT...LOC 1920Z 283DEG 69KT 4339 7366 4307 7414 4271 7493

HAIL..<.75IN WIND...70MPH

SS

Enhanced Severe Thunderstorm Warning

PRECAUTIONARY/PREPAREDNESS ACTIONS...

This is a DANGEROUS SITUATION. This storm is producing widespread wind damage across the Mohawk Valley and Capital Region of New York. SEEK SHELTER NOW inside a sturdy structure and stay away from windows. &&

LAT. LON 4300 7244 4288 7255 4273 7247 4274 7302 4264 7295 4239 7301 4238 7307 4231 7300 4195 7305 4160 7437 4174 7457 4188 7445 4204 7474 4217 7445 4220 7454 4235 7443 4251 7470 4278 7369 4333 7326 4323 7243 TIME...MOT...LOC 2008Z 288DEG 62KT 4282 7326

TORNADO POSSIBLE HAIL...O.88IN WIND...80MPH

\$\$

Mew Haven

documentation of severe weather, please contact the National Centers for Environmental Information (NCEI)



Scud Clouds vs Mammatus

Scud Cloud ≈ No Worries!



Photo courtesy of NWS Jackson, KY

Mammatus – often associated with thunderstorms



Mammatus outside NWS Albany office.
Photo courtesy of NWS Meteorologist
Christina Speciale



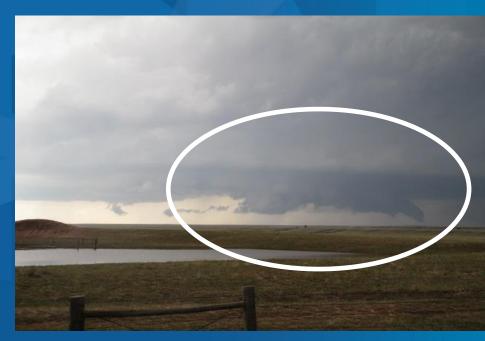
Shelf Cloud vs Wall Cloud

Shelf Clouds occur with Squall Lines – straight line winds Updraft/downdraft interface

Wall Clouds rotate – sometimes precursor to tornado Isolated lowering of cloud base



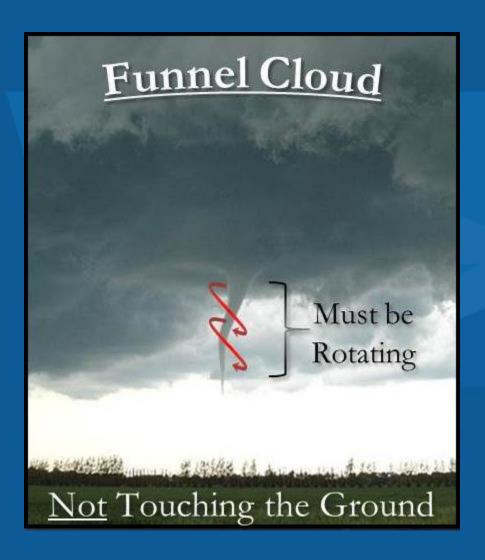
Photo courtesy of https://www.weather.gov/lmk/shelf cloudversusawallcloud

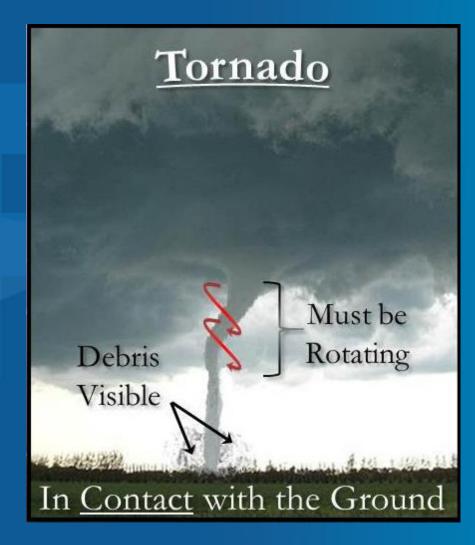


Wall cloud near Cheyenne, WY.
Photo courtesy of NWS
Meteorologist Christina Speciale.



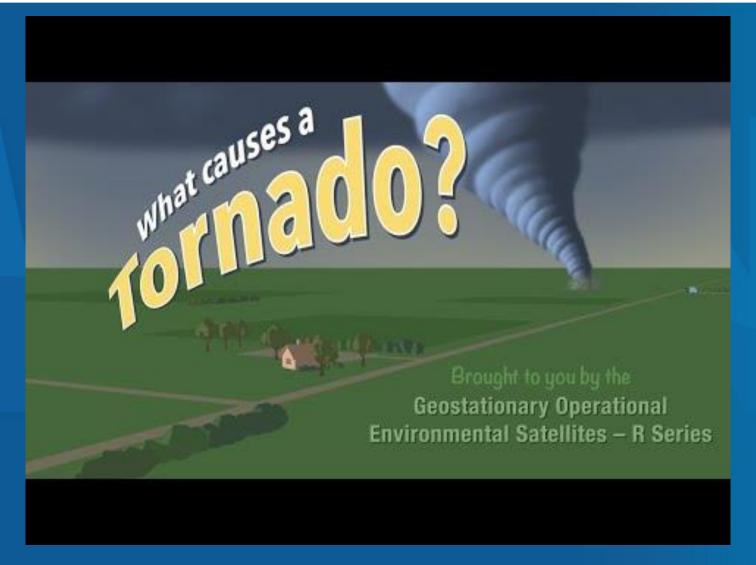
Funnel Cloud vs Tornado







Tornado Formation



Tornado Formation courtesy of NOAA SciJinks



TORNADO TERMINOLOGY



Enhanced Fujita Scale	
EF-0	65–85 mph winds
EF-1	86-110 mph
EF-2	111-135 mph
EF-3	136-165 mph
EF-4	166-200 mph
EF-5	>200 mph

Tornado Watch

Weather conditions could lead to the formation of severe storms and tornadoes. **BE PREPARED**: Know your safe location. Be ready to act quickly if a Warning is issued or you suspect a tornado is approaching.

Tornado Warning

A tornado has been spotted or indicated by weather radar, meaning a tornado is occurring or expected soon. **TAKE ACTION:** There is imminent danger to life and property. Immediately seek refuge in the safest location possible.

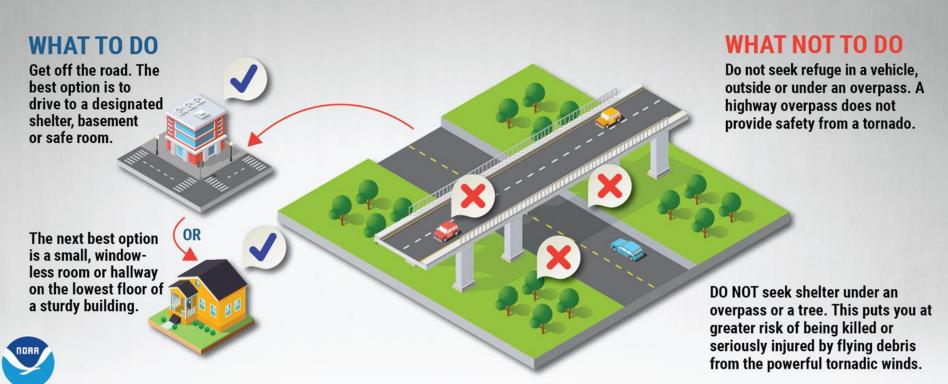
Tornado Emergency

An exceedingly rare situation with a severe threat to human life and catastrophic damage due to a confirmed violent tornado. **TAKE ACTION:** There is imminent danger to life and property. Immediately seek refuge in the safest location possible.





TORNADOES AND ROAD SAFETY





Tornado Sheltering

Tornado Sheltering Guidelines

Seek the best available refuge area immediately when a Tornado Warning is issued.

Your chance of surviving a tornado is excellent if you follow these guidelines.

WORST OPTIONS

Mobile homes

Vehicles

Underneath a highway overpass

BAD OPTIONS

Large open rooms like gymnasiums

Manufactured housing

GOOD OPTIONS

Interior room of a well-constructed home or building

Basement

BEST OPTIONS

Above or below ground Tornado Storm Shelter (NSSA/ICC 500 compliant)*

Specifically-designed FEMA Safe Room*

Find another option



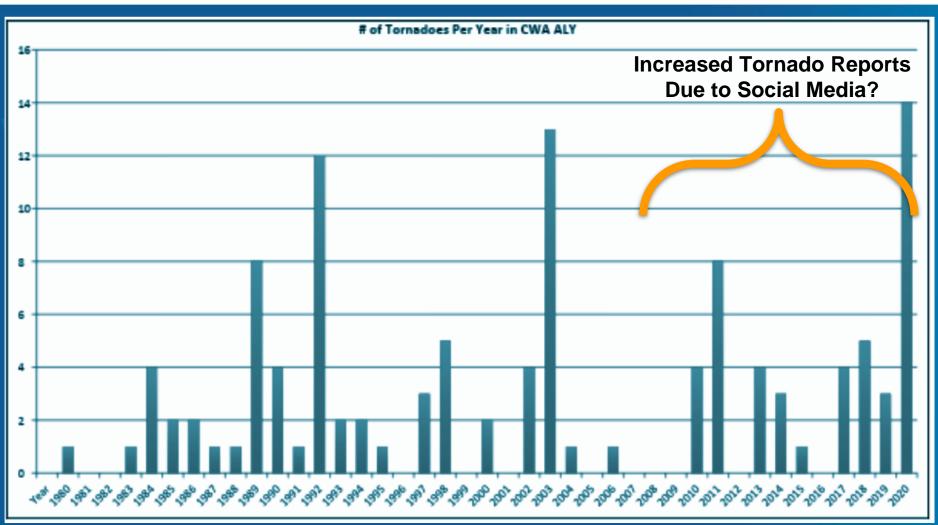
Stay in place until all clear

*Recommended by FEMA





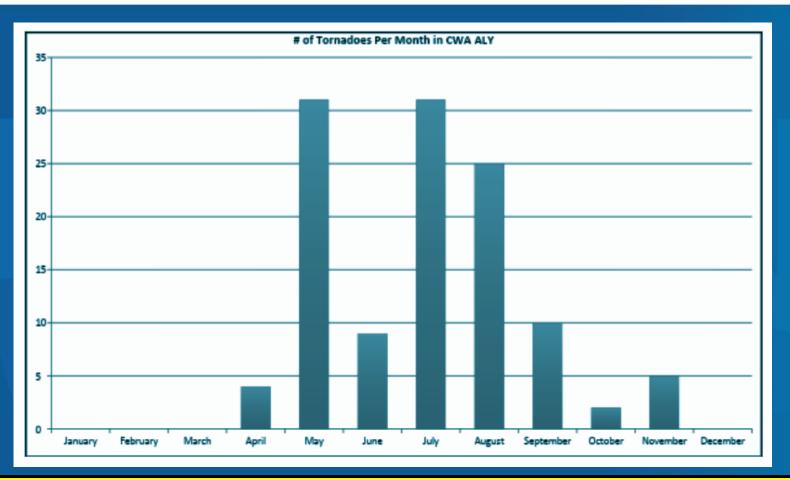
Albany CWA Tornado Climatology (1980-2020)



The number of tornadoes per year from 1980 to 2020 in the NWS at Albany County Warning Area (CWA). A total of 117 tornadoes have occurred.



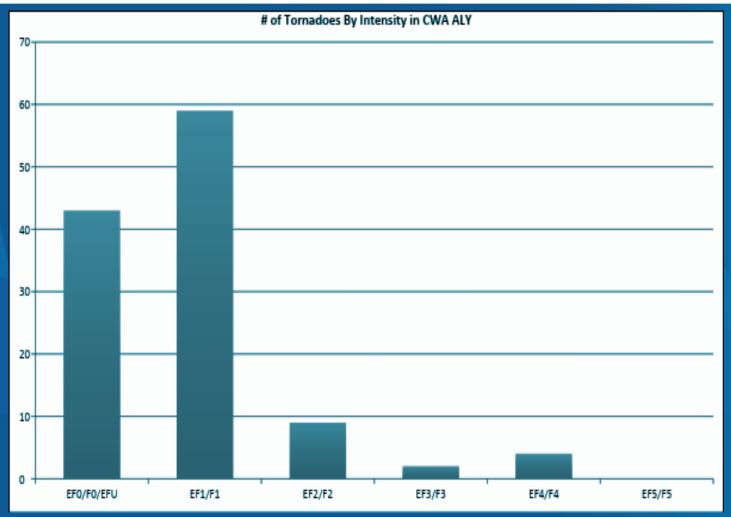
Albany CWA Monthly Tornadoes (1980-2020)



The number of tornadoes by month from 1980 to 2020 in the CWA of the NWS at Albany which covers eastern NY and western New England. A total of 117 tornadoes have occurred with a maxima in the late spring and summer. May and July have the most tornadoes, though a steady increase has occurred in August over the past few years.



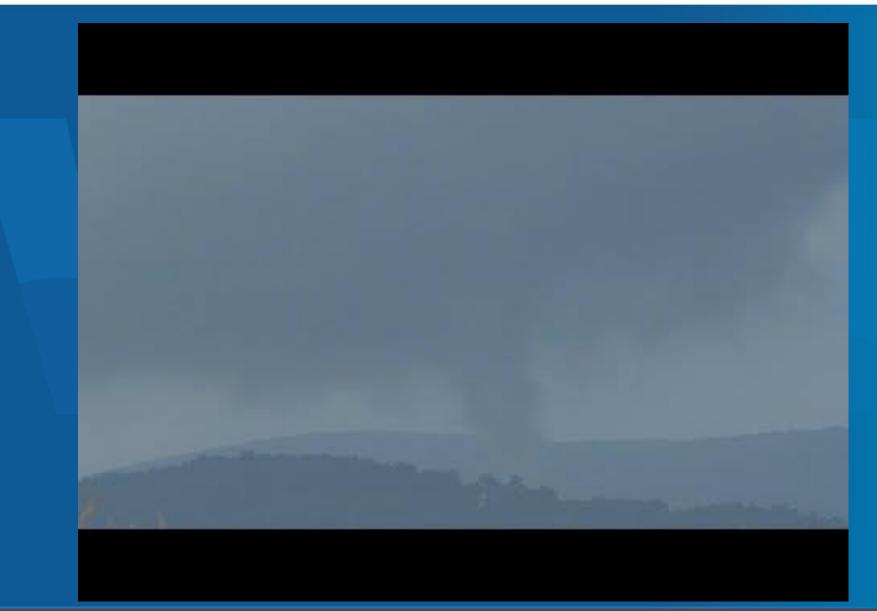
Albany CWA Tornadoes by Intensity (1980-2020)



The # of tornadoes by intensity from 1980 to 2020 in the CWA at Albany. 101 of 117 tornadoes are EF-0 (65-85 mph) or EF-1 (86-110 mph).



Dutchess County Tornado? - August 2, 2020





Tornado - August 2, 2020

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Public Information Statement
National Weather Service Albany NY
644 PM EDT Mon Aug 3 2020
...NWS DAMAGE SURVEY FOR 08/2/20 TORNADO EVENTS...
.Litchfield County #1...
Start Location...Sharon in Litchfield County, CT
End Location...Sharon in Litchfield County, CT
Date...August 2, 2020
Estimated Time...5:36 PM EDT
Maximum EF-Scale Rating...EF0
Estimated Maximum Wind Speed...80 mph
Maximum Path Width...30 yards
Path Length...0.25 mile
Beginning Lat/Lon...41.86/-73.50
Ending Lat/Lon...41.87/-73.50
* Fatalities...0
* Injuries...0
...Summary...
The National Weather Service storm survey team confirms an EF0
tornado in Sharon, CT. The tornado struck a nursery along the New
York/Connecticut border. Large trees were uprooted. The metal
infrastructure of greenhouses was destroyed. Eyewitnesses reported
garden supplies rotating in the air above the nursery. Down the
road from the nursery, additional uprooted trees were observed.
.Litchfield #2...
Start Location...Falls Village in Litchfield County, CT
End Location...Falls Village in Litchfield County, CT
Date...August 2, 2020
Estimated Time...6:05 pm EDT to 6:10 PM EDT
Maximum EF-Scale Rating...EF1
Estimated Maximum Wind Speed...90 mph
Maximum Path Width...100 yards
Path Length...1.7 miles
Beginning Lat/Lon...41.93/-73.37
Ending Lat/Lon...41.94/-73.34
* Fatalities...0
* Injuries...0
...Summary...
The National Weather Service storm survey team confirms an EF1
```

tornado in Falls Village, CT. The survey team observed many snapped and uprooted trees along Lime Rock Station Road near River

tornado.

Road. Additional downed trees were noted along the path of the

2.40 3.10 4.00 5.10 6.40 8.00 10.00 **調 夕 計 筒 🝵 🦠 🛢 🖹 🕸 🖫 🔯 Enhanced Fujita Scale** EF-0 65-85 mph winds EF-1 86-110 mph EF-2 111-135 mph EF-3 136-165 mph EF-4 166-200 mph EF-5 >200 mph



How to report: Who, What, When, Where

Who Are You? "Hello, I am a trained spotter."

What Are you Reporting? Be specific if possible! "I would like to report two uprooted pine trees, 6" in diameter and healthy."

When Did the Event Occur? "This occurred at 2:45PM."

Where Did the Event Occur? "At the intersection of Main Street and Route 123."



245 PM



Intersection of Main Street and Route 123



What to report: T-storms





Snapped/uprooted?

Live/dead tree?

Did it do additional damage (e.g., fell on a car or house)?

How many trees/limbs?

Trees fell in similar or different directions?



Hail size compared to a common object OR Hail size measured along long axis

How long did it occur?

Did it do any damage (e.g., dented cars, destroyed crops)



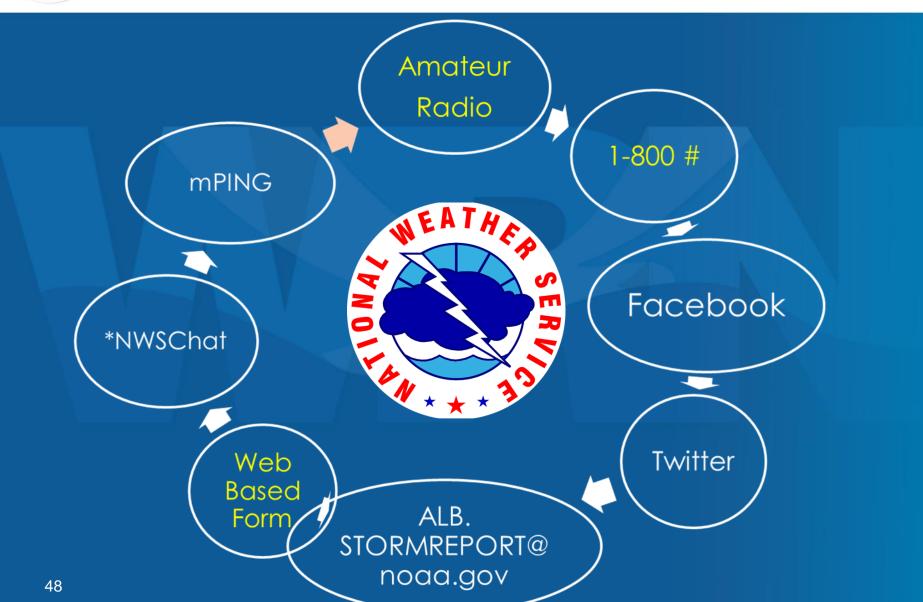
Rotating wall cloud, funnel cloud, or tornado on the ground producing debris?

What is your location, and which direction are you facing?

What is the extent of the damage (if you can safely assess)



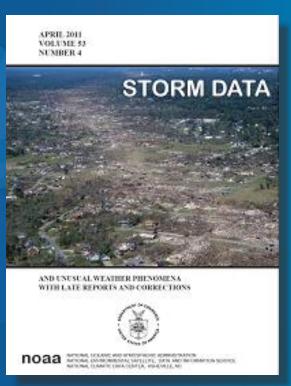
How to Relay Your Report





FEMA and Your Data





CONNECTICUT, Northwest

Litchfield	County
------------	--------

Kent 18 2255EST 0 0 Thunderstorm Wind (50EG)

Several trees were reported down in Kent.

May 18 was the second straight day of temperatures approaching or exceeding 90 degrees in Northwest Connecticut. The hot airmass, despite not being overly humid, provided an unstable environment conducive for thunderstorm development. Thunderstorms began to form in the early afternoon over western New York along a lake breeze boundary. These storms pushed into Northwest Connecticut shortly before midnight, resulting in reports of wind damage and scattered power outages. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

Litchfield County

1 SE Park Lane 31 1848EST 0 0 Hail (1.00)

Litchfield County 2 WSW Judds Bridge

31 1850EST 0 0 Hail (1.00)

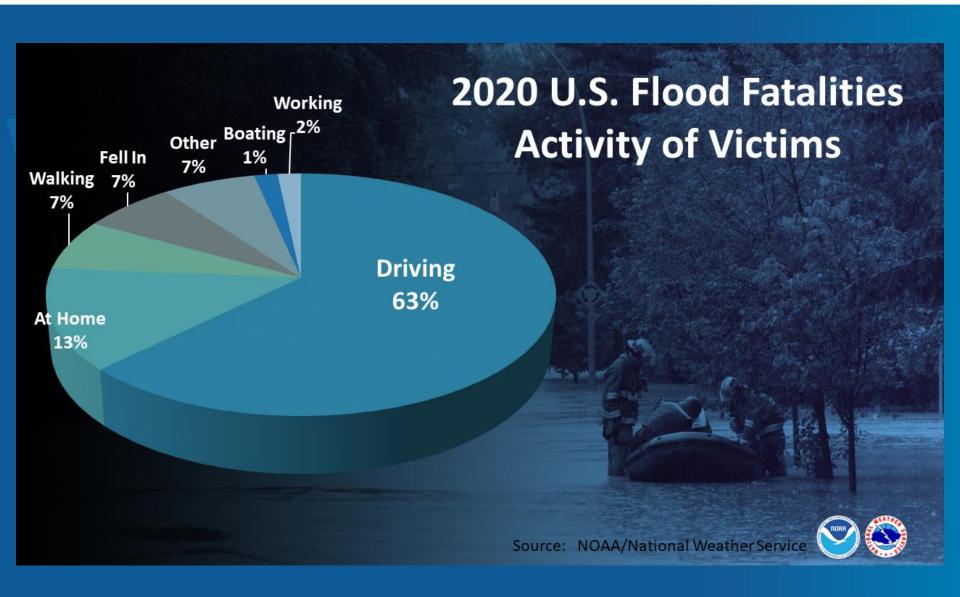
A severe thunderstorm impacted northwestern Connecticut on May 31, 2017 as a cold upper-level disturbance interacted with a moderately unstable airmass. The supercell thunderstorm had earlier produced a tornado and large hail in the mid-Hudson Valley of New York, and continued producing large hail as it entered Connecticut. Hail up to the size of quarters was reported.







2020 Flood Statistics





Flood vs. Flash Flood

Flood

-Any high flow, overflow, or inundation by water which causes or threatens damage



-A *rapid and extreme* flow of high water into a normally dry area, or a rapid water level rise in a stream or creek.

-Requires immediate action to protect life and property!







Street/Poor Drainage Flooding

River Flooding



Usually dissipates shortly after heavy rain ends



Usually continues until after river crests



Flash Flooding





Impact-Based Warnings

NEW FLASH FLOOD WARNING FORMAT

Impact-based warnings contain hazard, source, and impact information, and additional damage threat tags. On the right is a sample impact-based warning.

Hazard, Source, and Impact Information

Each Flash Flood Warning (FFW) will contain individual lines that clearly state hazard, source, and impact information.



Tags

Tags will appear at the bottom of FFWs and in Flash Flood Statements (FFSs), which provide supplemental information on active FFWs.



... FLASH FLOOD EMERGENCY FOR LIFE-THREATENING CATASTROPHIC FLOODING...

The National Weather Service in League City has issued a

- * Flash Flood Warning for... Northeastern Austin County in southeastern Texas...
- * Until 715 PM CDT.
- * At 119 PM CDT, Doppler radar indicated continued bands of rain and thunderstorms across the area. Emergency management reported ongoing water rescues. Rainfall rates of 2 to 3 inches per hour will persist across the warned area.

This is a FLASH FLOOD EMERGENCY FOR LIFE-THREATENING CATASTROPHIC FLOODING. This is a PARTICULARLY DANGEROUS SITUATION. SEEK HIGHER GROUND NOW!

HAZARD...Life-threatening flash flooding caused by thunderstorms.

SOURCE... Emergency management.

IMPACT...Widespread, life-threatening flooding will continue and perhaps worsen at some locations. Historic flooding is expected to continue in the Houston metropolitan area through the foreseeable future.

* Some locations that will experience flooding include... Fasadena, Pearland, League City, and Humble.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Move to higher ground now. This is an extremely dangerous and life-threatening situation. Do not attempt to travel unless you are fleaing an area subject to flooding or under an evacuation order.

2.2

LAT...LON 2904 9515 2905 9527 2932 9536 2916 9543

FLASH PLOOD...OBSERVED FLASH PLOOD DAMAGE THREAT...CATASTROPHIC EXPECTED RAINFALL...2-3 INCHES PER HOUR





Dolgeville, NY October 31, 2019 - November 1, 2019



October 31-November 1, 2019

River flood damage in Herkimer County

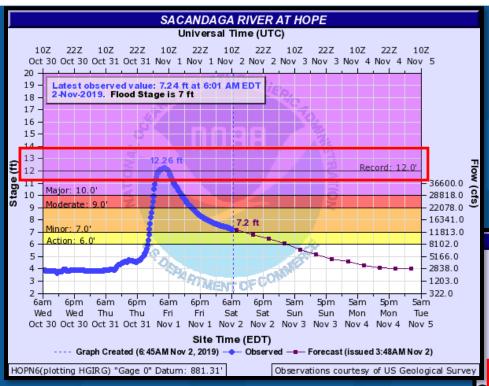


1 fatality in Newport, Herkimer County due to flash flood (person swept away in flood waters)





River & Stream Record Flooding



Sacandaga River at Hope

Mohawk River at Little Falls

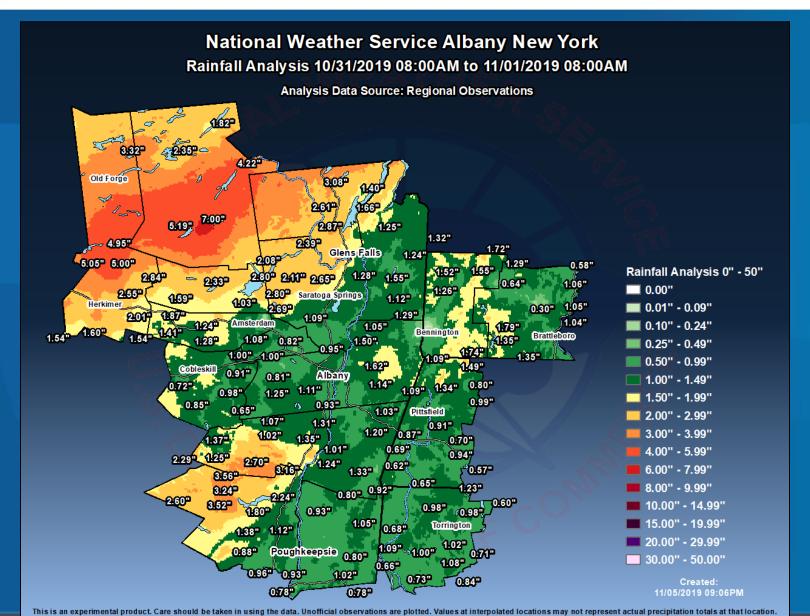


Observations courtesy of US Geological Survey

LTLN6(plotting HGIRG) "Gage 0" Datum: 308.84'

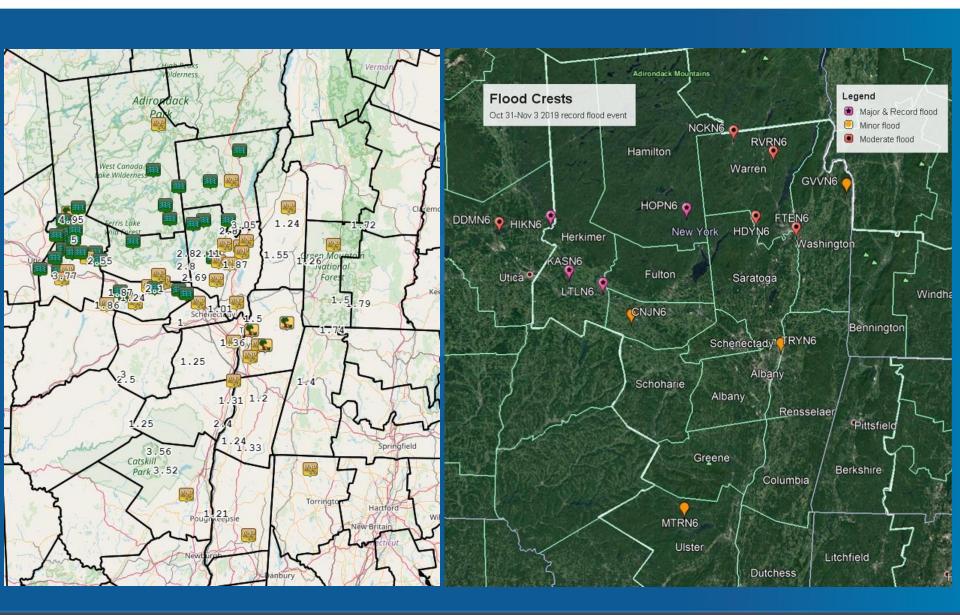


October 31-November 1, 2019





Oct 31- Nov 1, 2019 Damage Reports





August 24, 2020 Whitehall, NY Flash Flood



Route 22 Flooded with cars submerged



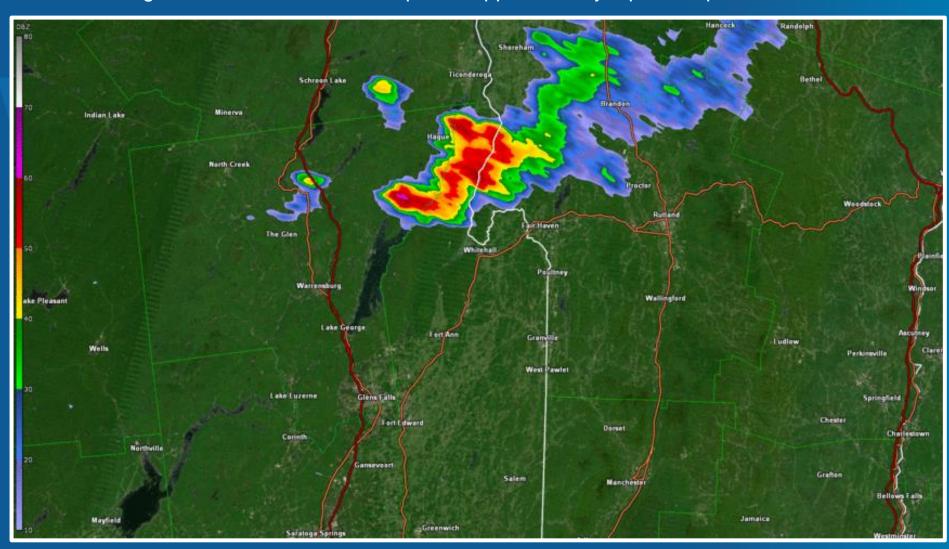
Whitehall Central School Damage

Photos Courtesy: Tim Hardy Deputy Director Washington County Public Safety



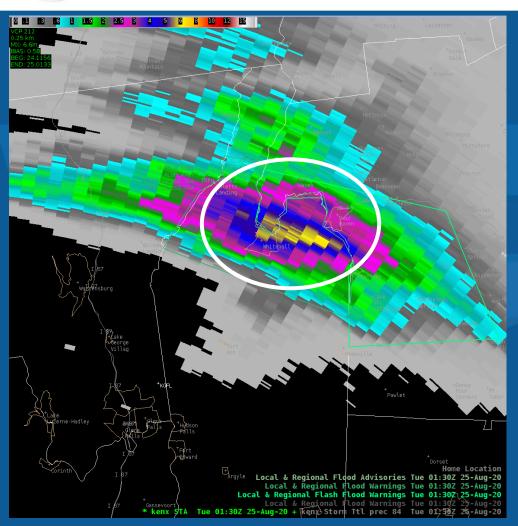
August 24, 2020 Whitehall Flash Flood

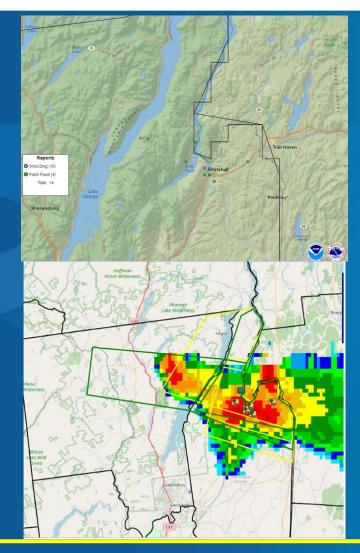
24 August 2020 KENX Radar Loop from approximately 4 pm to 8 pm EDT





August 24, 2020 Whitehall, NY Flash Flood



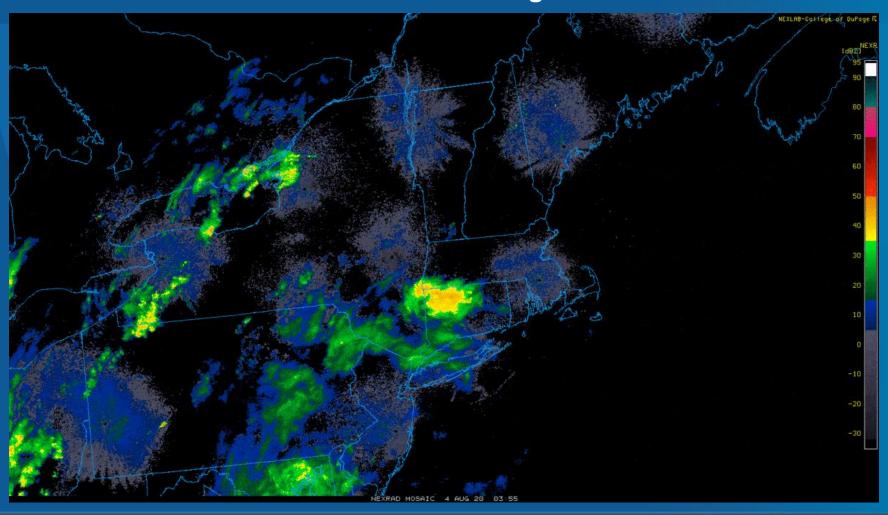


Radar estimates were as high as 6.60". 10 Wind damage and 5 flash flood reports occurred, as the severe thunderstorms trained for 2-4 hours. 5.85" of rainfall was reported from the Whitehall Coop Observer!!!



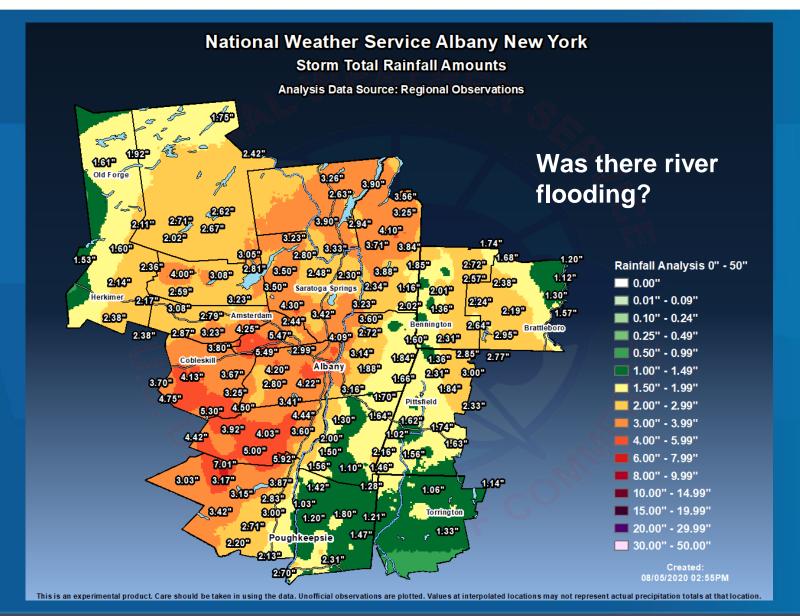
Tropical Storm Isaias Radar Loop

12 AM – 8 PM EDT 4 August 2020



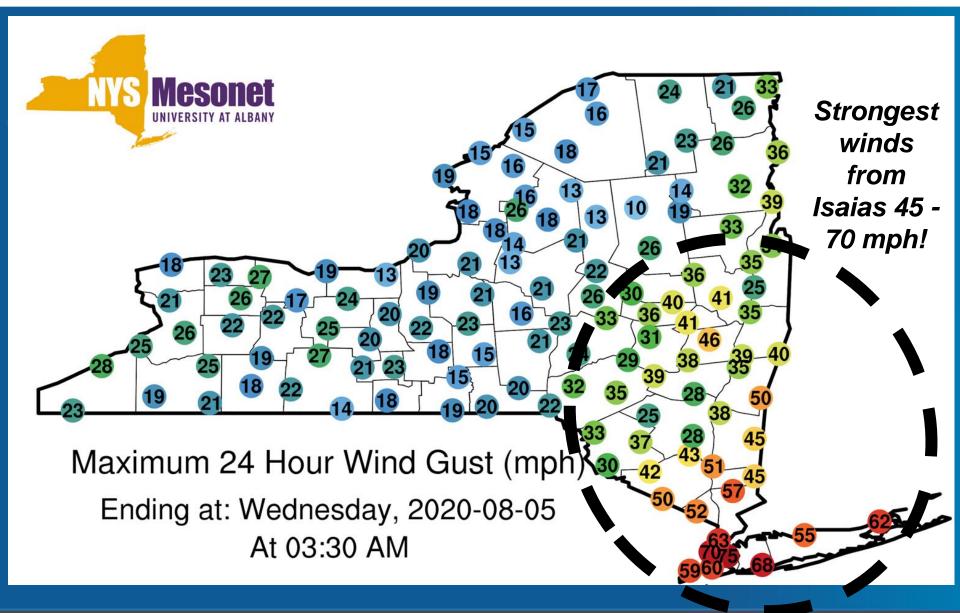


Tropical Storm Isaias



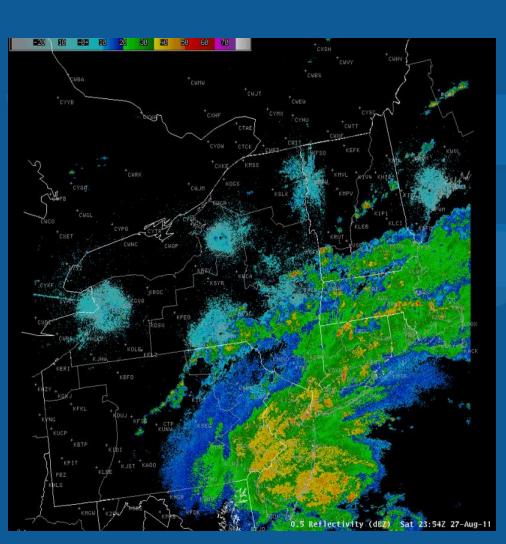


Tropical Storm Isaias





Tropical Storm Irene - August 2011





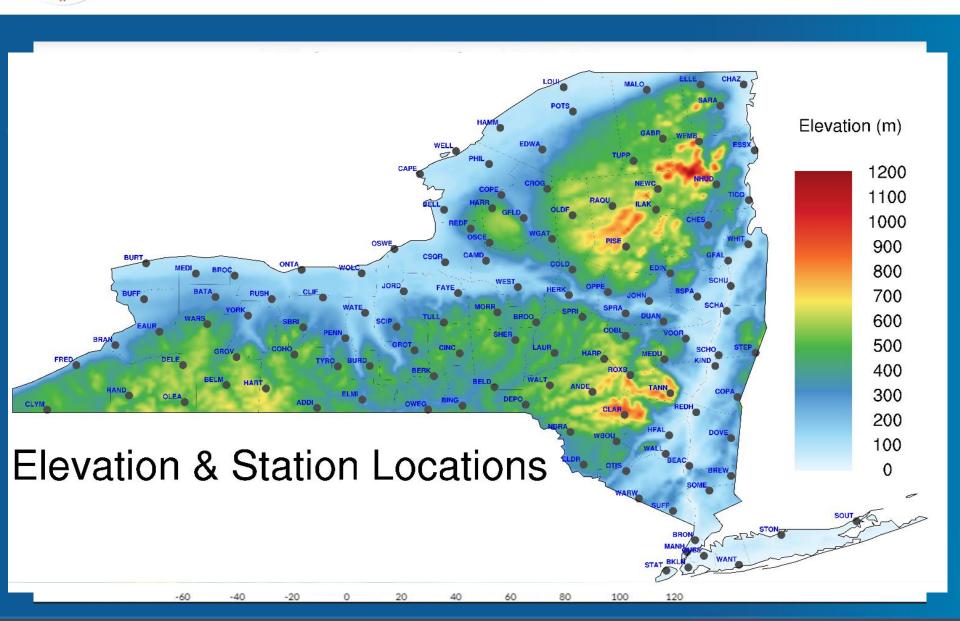
VT Route 4 After Irene

Flooding – What to Report?

- Depth of water?
- Is water flowing/rising or standing?
- Are roads closed or impassible?
- Usual flood-prone spot, or not?
- Water flowing into buildings?
- Damage from flooding?

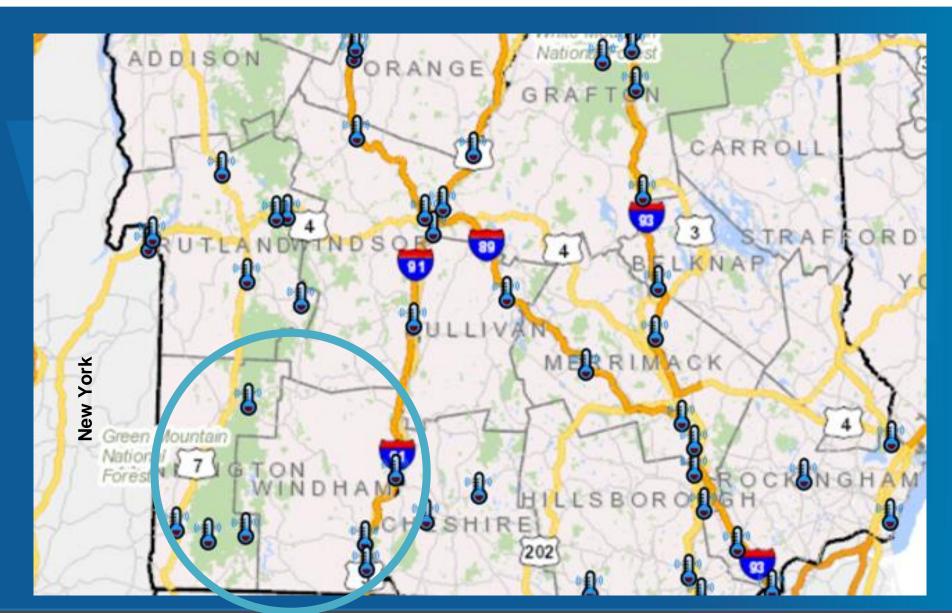








Vermont VTRANS - Mesonet



Wanted: Volunteer Rainfall Observers!

Join CoCoRaHS (Community Collaborative Rain, Hail and Snow Network)



What is CoCoRaHS?

CoCoRaHS is a national grassroots, non-profit, community-based, high-density precipitation network . . .

> ... made up of volunteers of all ages and backgrounds





... who take daily measurements of precipitation right in their own backyards

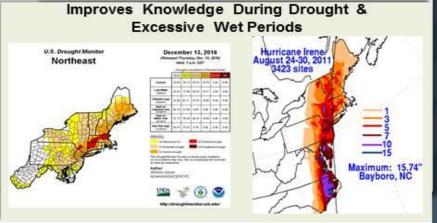
Why is the CoCoRaHS data so useful?



CoCoRaHS data is useful for daily rainfall totals as well as the major rainfall events:



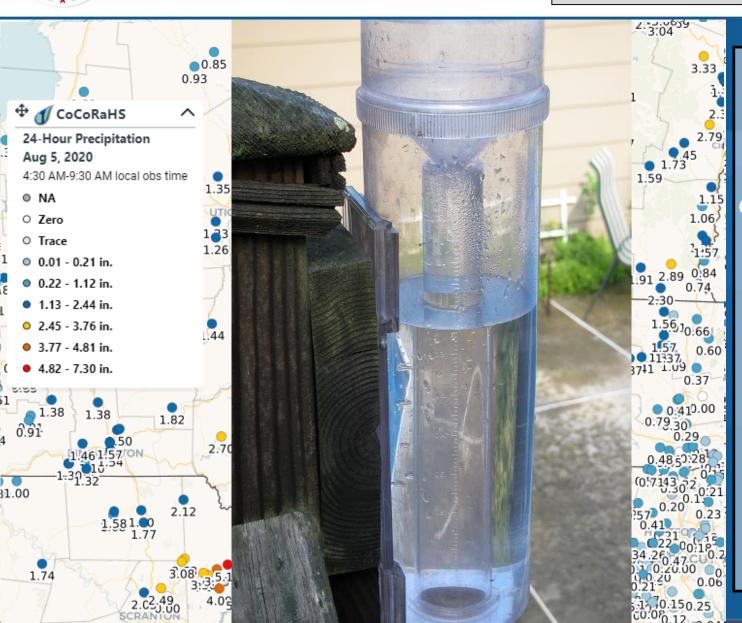
www.CoCoRaHs.org





Join CoCoRaHS!

Become an observer at www.cocorahs.org!

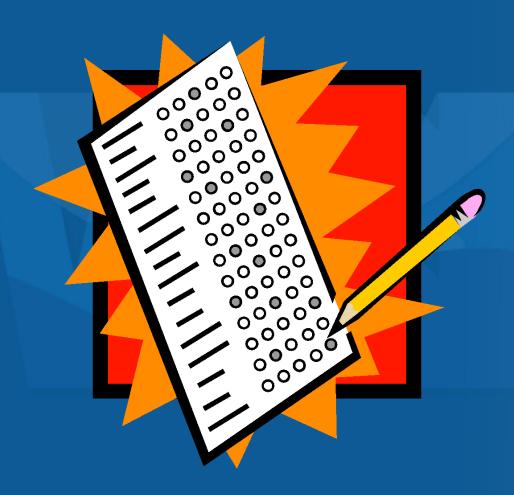


Join the community of over 300 CoCoRaHs observers across eastern NY & western New England!

Receive emails
from NWS
Albany with
rain/snow maps
& best
measuring
practices



Quiz - Are you Ready?



Refer to Quiz link on the Internet Skywarn Page



Spotter Quiz - BONUS

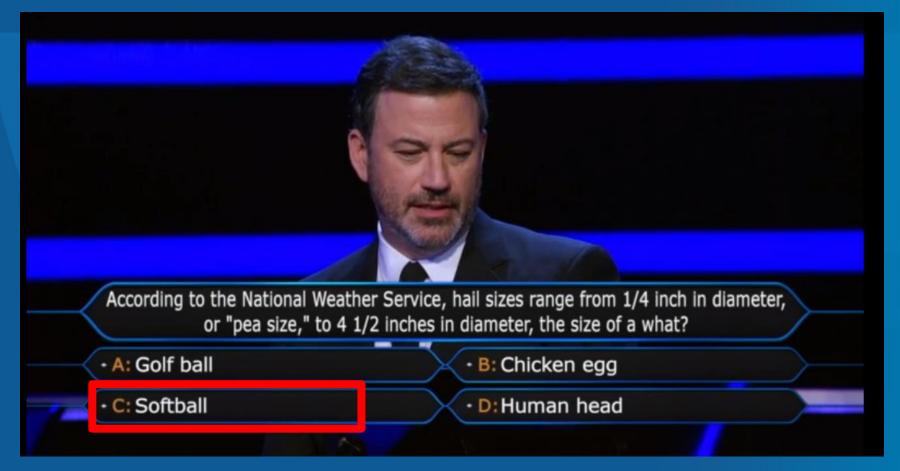






Spotter Quiz - BONUS







Skywarn™ Weather Spotter!

Congratulations



Skywarn Spotter Information Sheet



NATIONAL WEATHER SERVICE, NOAA ALBANY, NY SKYWARN INFORMATION SHEET



		_
Report Severe Weather (Backup)	-	
Weather Spotter Field Guide	www.weather.gov/media/owlie/SGJune6-11(1).pdf	
Email	alb.stormreport@noaa.gov	
NWS Albany	www.weather.gov/Albany	
Twitter	@NWSAlbany	
Facebook Page	https://www.facebook.com/NWSAlbany	
NOAA Weather Radio	https://www.weather.gov/nwr/	
Storm Prediction Center	www.spc.noaa.gov	
NWS Online Weather School	www.weather.gov/jetstream	
Weather Prediction Center	www.wpc.ncep.noaa.gov	
River Flood Monitoring	water.weather.gov/ahps	
CoCoRaHs	www.cocorahs.org	
NWS Amateur Radio Frequency	Primary 146.64 MHz - Secondary 145.19 MHz	

IMPORTANT WEATHER TO REPORT

When you report, please give your location (including your county) and the time of the observation. Try to report as soon as possible after observing the event and, remember your safety comes first! Please concentrate on the following phenomena:

SNOWFALL	After 1 inch of new snow, and then at 2 inches 4 inches, and every 2 inches thereafter (e.g.	

2, 4, 6, 9, 12, etc.). Then final storm total at the conclusion of the event.

FREEZING RAIN As soon as you observe the occurrence of freezing rain or freezing drizzle, especially if it starts

to collect on objects. Call again if the ice accumulation exceeds 1/4 inch. (measure on flat

THUNDER SNOW Location and time of occurrence

DESUBORIT COALE

WIND SPEEDS Report wind speeds greater than 40 mph

Report when you receive one inch (and then at least every inch thereafter) RAINFALL

FUNNEL CLOUD A "rotating" appendage descending from the base of a cumulonimbus cloud, but not touching

the ground. If possible, always look at the area beneath the funnel cloud for flying debris. If

flying debris is observed, it is a tornado.

TORNADO Violently rotating column of air descending from a cumulonimbus cloud and touching the

ground. Look for flying debris. If possible, report any injuries or fatalities

HAIL Report hail 0.75 or larger. Specify the diameter based on the hail scale (see other side)

FLOODING Report any flooding you observe, including basement, road, stream, creek, and ice jam flooding. Report the name of the stream/creek, road number/name (if applicable) and depth

DAMAGE Report all storm-related damage (large branches, fallen trees, structural damage, flood damage,

etc.) Even if it is several days after the event.

DEWPOINT SCALE					
Degrees "F"	50-55	55-60	60-65	65-70	>70
Comfort Scale					

	HAIL	Pea	Plain M&M	Penny	Nickel	Quarter	Half Dollar
N	Scale	0.25 in	0.50 in	0.75 in	0.88 in	1.00 in	1.25 in
ı	HAIL	Golf Ball	Baseball	Softball			
	Scale	1.75 in	2.75 in	4.00 in			

ENHANC.	ED FUJ	IIA SCA	LL
EF0			

65-85 mph EF1 86-110 mph EF2 111-135 mph EF3 136-165 mph EF4 166-200 mph EF5 >200 mph

ESTIMATED WIND SCALE

25-31 MPH.....Large branches in motion; whistling in telephone wires 32-38 MPH.....Entire trees in motion; slight difficulty walking against wind 39-54 MPH......Twigs break off trees; wind generally impedes progress 55-72 MPH......Damage to chimneys and TV antenna; large limbs/branches down 73-112 MPH......Roof surfaces damaged; windows broken; light mobile homes moved or overturned; moving vehicles pushed off road 113-157 MPH......Roofs torn off; weak buildings and mobile homes destroyed

>158 MPH.....Severe damage; cars lifted completely off ground

DEFINITIONS

Severe Thunderstorm A thunderstorm which produces hail to 1 inch in diameter or larger and/or wind gusts to

58 mph (50 kts) or greater

Watch Conditions are favorable for the weather event in or near the watch area

Warning The weather event is imminent or occurring in the warned area

Advisory The weather event will be an inconvenience. However, if caution is not exercised, it

could become life-threatening (mostly during the winter months)

Flash Flood A flood caused by heavy rainfall in a short period of time, generally less than 6 hrs

Inundation caused by heavy rain which generally takes greater than 6 hrs to occur Flood

Tornado A violently rotating column of air which extends from a thunderstorm and it is in

contact with the ground

Funnel Cloud A rotating, funnel-shaped cloud extending from the base of a thunderstorm and is not in

contact with the ground

Downburst A strong downdraft with an outrush of damaging wind on or near the ground

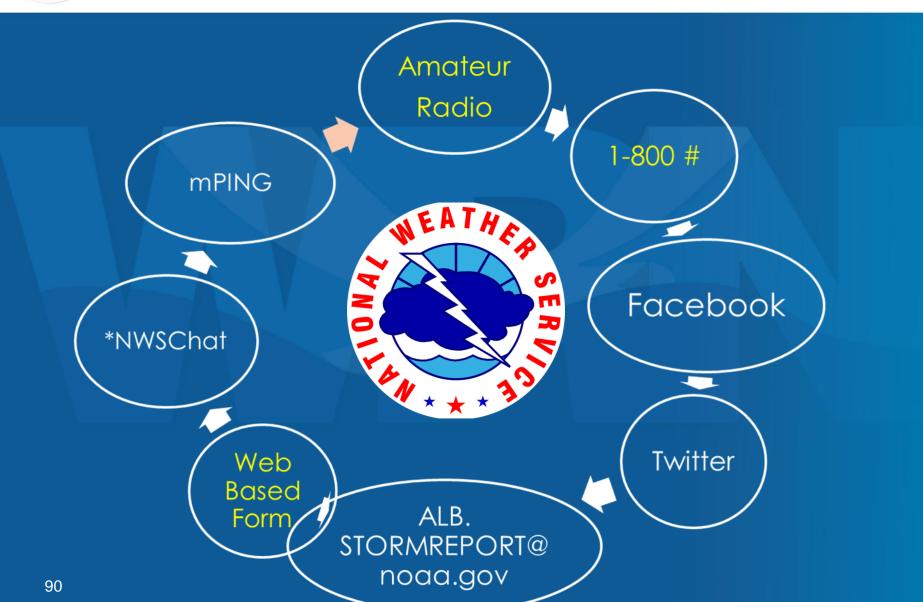
> Macroburst - swath of damaging wind more than 2.5 miles wide Microburst - swath of damaging wind 2.5 miles wide or less

SKYWARN FAOs

- -SKYWARN Spotter recertification every 2 years
- -SKYWARN Spotter webpage https://www.weather.gov/aly/skywarn



How to Relay Your Report





Skywarn Weather Spotter Training

Alb.stormreport@noaa.gov

Thank You!



Skywarn™ Form (Optional)
https://forms.gle/BV2oXayoLyPUB6yAA



















Navigating our web page



Radar



Current Weather



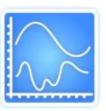
Rivers & Lakes



Satellite



Forecast Maps



Hour by Hour Forecast



Winter Weather



Graphical Hazards



Forecaster's Discussion



Recreational Forecast



Text Bulletins



Submit Storm Report



Skywarn



Weather Hazard Briefing



Air Quality



Fire Weather



Climate



Drought



Skywarn (™)



Climate



Reports



Weather Hazard Briefings



Following slides are for later use...

Slide intentionally left blank

YouTube Link Here

- 1) Past Weather/Climate Data
- 1) Public Information Statements, Local Storm Reports, "GAZPACHO" maps
- 1) Weather Briefings and Weather Story Graphic
- 1) Hourly Weather Graphics for Your Local Forecast
- 1) Snowfall Graphics

MY FORECAST Albany International Airport NY



Mostly Cloudy

34°F

1°C

Get Detailed info

Tonight



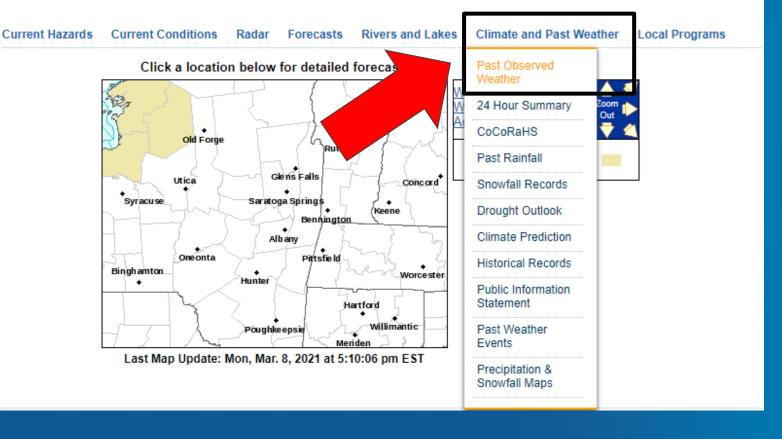
Mostly Cloudy Low: 26°F

Tuesday

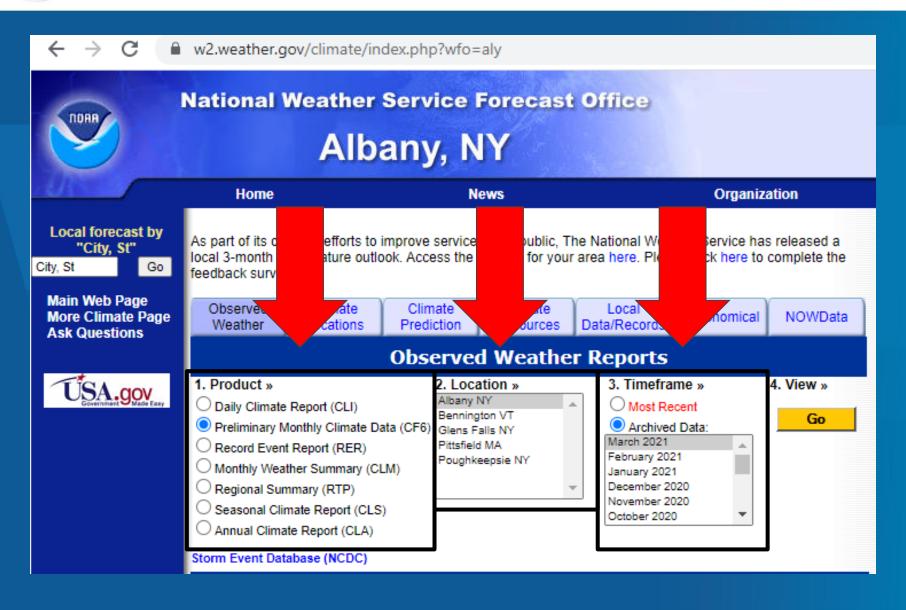
NWS Forecast Office Albany, NY

Weather.gov > Albany, NY

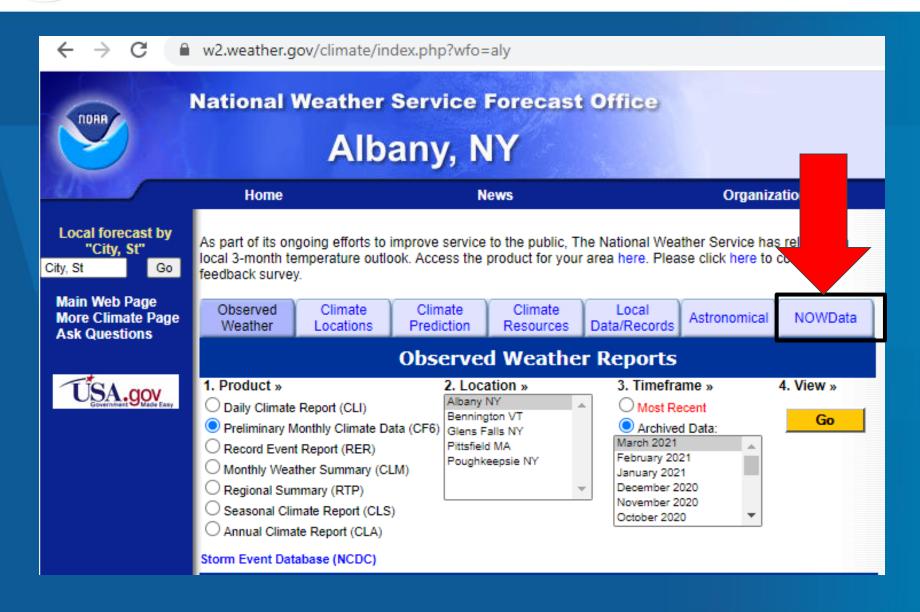
Albany, NY
Weather Forecast Office



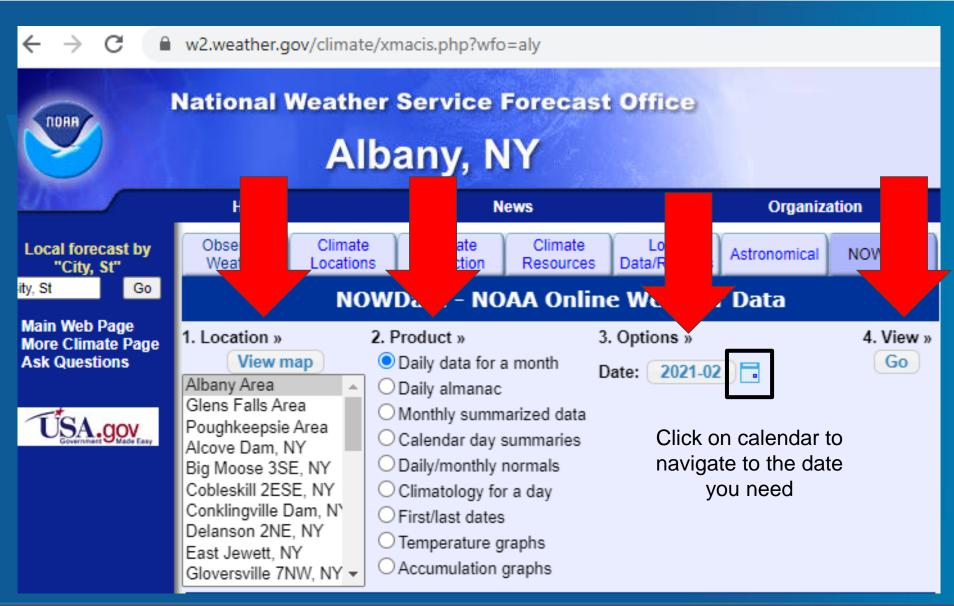












MY FORECAST Albany International Airport NY



Mostly Cloudy

34°F

1°(

Get Detailed info

Tonight



Mostly Cloudy Low: 26°F

Tuesday

NWS Forecast Office Albany, NY

Weather.gov > Albany, NY

Albany, NY
Weather Forecast Office

Current Hazards Current Conditions Radar Forecasts Rivers and Lakes Climate and Past Weather Local Programs



Past Observed Weather

24 Hour Summary

CoCoRaHS

Past Rainfall

Snowfall Records

Drought Outlook

Climate Prediction

Historical Records

Public Information Statement

Past Weather Events

Precipitation & Snowfall Maps

MY FORECAST Albany International Airport NY



Mostly Cloudy

34°F

1°C

Get Detailed info

Tonight



Mostly Cloudy Low: 26°F

Tuesday

NWS Forecast Office Albany, NY

Weather.gov > Albany, NY

Albany, NY
Weather Forecast Office

Aviation

Climate

Hydrology

Research

Program

Stormbuster

Newsletter

Program

Local Definitions

Local Science and

Local CoCoRaHS

Northeast Drought

Weather Observer

Weather Radio

Weather Safety

Outreach Request

Current Hazards Current Conditions Radar Forecasts Rivers and Lakes Climate and Past Weather Local Programs

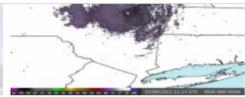
Click a location below for detailed forecast. Watches. Warnings & Advisories Old Forge Rutland Hazardous Wooths Out Glens Falls Utica Concord Syracuse Saratoga Spring\$ Keene Bennington | Alb any Oneonta Pittsfield Binghamton Worcester Hunter Hartford Willimantic Poughke epsie Meriden Last Map Update: Mon, Mar. 8, 2021 at 5:31:05 pm EST

Weather Stony Local Dadar



change location







Text Product Selector (Selected product opens in new window)

Latest Text Products Issued by ALY





Radar



Current Weather



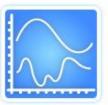
Rivers & Lakes



Satellite



Forecast Maps



Hour by Hour Forecast



Winter Weather



Graphical Hazards



Forecaster's Discussion



Recreational Forecast



Text Bulletins



Submit Storm Report



Skywarn



Weather Hazard Briefing



Air Quality



Fire Weather





Drought



Public Information Statements, Local Storm Reports, "GAZPACHO" maps

MY FORECAST Albany International Airport NY

Mostly Cloudy

34°F

1°C

Get Detailed info

Tonight



Mostly Cloudy Low: 26°F

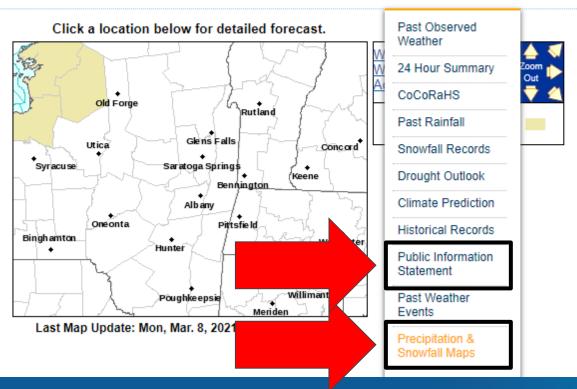
Tuesday

NWS Forecast Office Albany, NY

Weather.gov > Albany, NY

Albany, NY
Weather Forecast Office

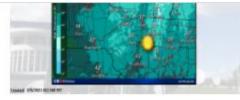
Current Hazards Current Conditions Radar Forecasts Rivers and Lakes Climate and Past Weather Local Programs

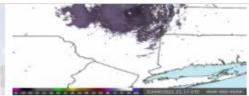




Public Information Statements, Local Storm Reports, "GAZPACHO" maps

change location







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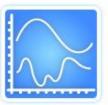
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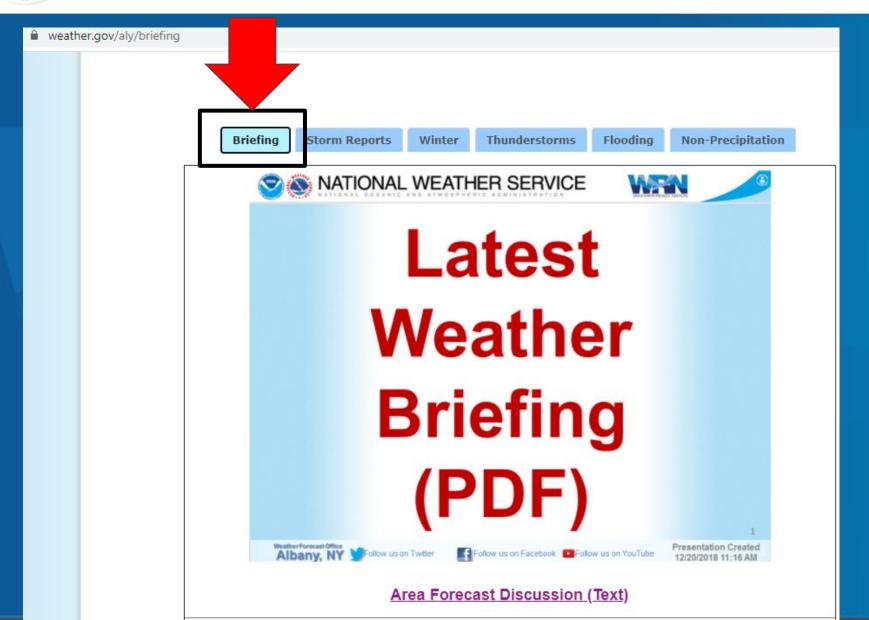
Climate



Drought



Public Information Statements, Local Storm Reports, "GAZPACHO" maps





Public Information Statements, Local Storm Reports, "GAZPACHO" maps

Briefing

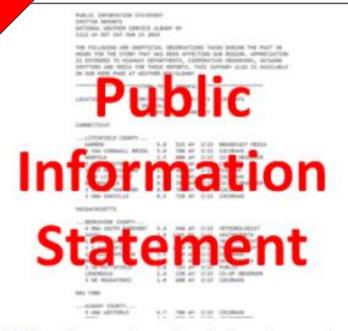
Storm Reports

Winter

Thunderstorms

Flood

Non-Precipitation



Listing of snow, ice, rain, wind, or temperature reports by county.



Local Storm Reports (Snow Only, Graphical)

Local Storm Reports (Text)

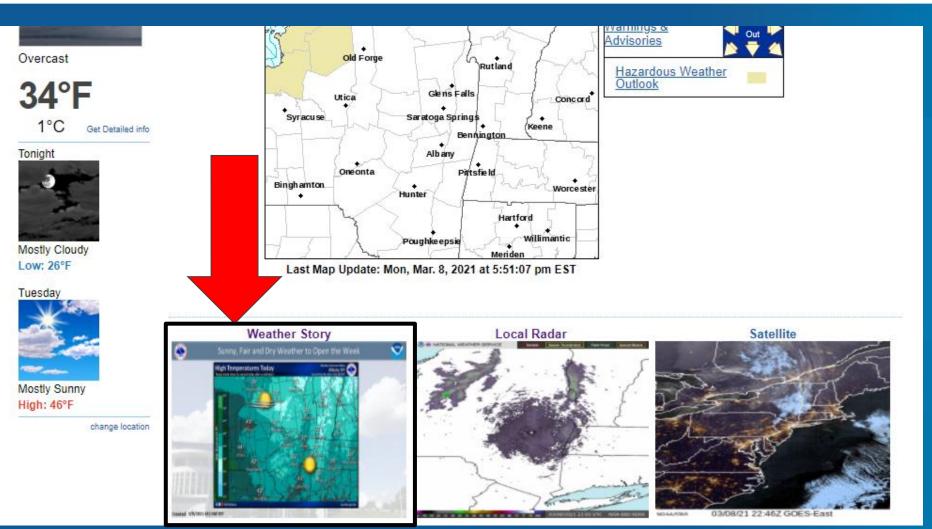


Weather Briefing and Weather Story





Weather Briefing and Weather Story



Weather Story is updated at least once a day (mainly by 6am)



Hourly Weather Information

Saturday Night Partly cloudy, with a low around 25.

Sunday Night Partly cloudy, with a high near 38.

Sunday Night Partly cloudy, with a low around 23.

Monday Mostly sunny, with a high near 41.

Additional Forecasts and Information

ZONE AREA FORECAST FOR EASTERN ALBANY, NY

Forecast Discussion Printable Forecast Text Only Forecast <u>Hourly Weather Forecast</u> Tabular Forecast

Hazardous Weather
Regional Weather Conditions

Albany National Weather Service

<u>Air Quality Forecasts</u> International System of Units

Past Weather Information Interactive Forecast Map



Point Forecast: Albany NY

42.68°N 73.81°W (Elev. 236 ft)

Last Update: 3:40 pm EST Mar 8, 2021

Forecast Valid: 5pm EST Mar 8, 2021-6pm EDT Mar 15, 2021

Forecast Discussion

KML XML

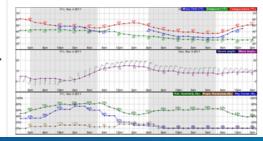
Additional Resources

Radar & Satellite Image





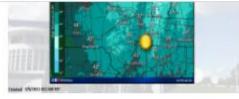
Hourly Weather Forecast





Snowfall Graphics

change location







Text Product Selector (Selected product opens in new window)

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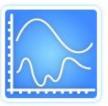
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